REMARKS

The rejections of independent claims 1 and 8 under 35 USC 102 for anticipation by the cited Tosey patent are traversed because:

> A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described , in ... [the] single prior art reference. MPEP 2131 (citation omitted).

Independent claim 1 requires first, second and third I/O devices are for analyzing contents of packets. The Action refers to column 3, lines 28-31, of the Tosey patent for the description of such I/O devices necessary for the rejection, but these lines only disclose that its "... invention is accomplished by providing a redundent network architecture with mechanisms for automatically detecting and recovering from failure of a network interface." This neither expressly nor inherently describes the claimed I/O devices for analyzing contents of packets and, therefore, the rejection is traversed.

Independent claim 1 also requires first, second and third packet extractors having packet outputting ends that are each connected to first, second and third hubs. The Action refers to column 5, lines 15-19, of the Tosey patent for the description of such packet extractors necessary for the rejection, but these lines only disclose that "[i]f additional network computing devices are added to the network 30, each network computing device would be connected to each hub 33 and 34 ...." This neither expressly nor inherently describes that the network computing devices of the patent are the packet extractors of the claim and, therefore, the rejection is traversed.

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The Action also refers to Figure 3 of the Tosey patent in the latter regard, but Figure 3 only shows connections to hubs and, therefore, does nothing to change the traversal of the rejection by the claimed packet extractors that have not been identified in the Tosey patent expressly or inherently as required for the rejection.

If from column 5, lines 15-19, of the Tosey patent the Action intended reference to its network computing device, column 5, lines 8-9, of the patent describe the network computing device as a data switch, and not a packet extractor, as claimed. Therefore, the traversals of the rejection of claim 1 for the reasons above remains unchanged.

Independent claim 8 continues to require on the one hand network cards "respectively connected" (and not connected respectively) to first, second and third hubs. (Please refer to network cards Eth0, 1 & 2 respectively connected to hubs 22, 24 and 26 in the figure of the application.) Fig. 3 of the Tosey patent that was considered in the Action to support the rejection as described above shows, on the other hand, network cards 37-38 (and 39-40) connected respectively to hubs 33-34. Claim 8 has one of three cards connected to first, second and third hubs, another of three cards connected to first, second and third hubs and a third of three cards connected to first, second and third hubs. The patent has a first card connected to a first hub and a second card connected to a second hub. Therefore, the three cards of claim 8 respectively connected to first, second and third hubs are neither expressly nor inherently described in the Tosey patent, whereby the rejection is traversed.

Dependent claims 2-7 and 9 to direct connection are allowable with independent parent claims 1 and 8 for the above reasons.

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If it were considered to convert the rejection into one under 35 USC 103 for obviousness

from the cited Tosey patent alone or, perhaps, in combination with the newly cited Lee, et al.

patent (6,493,752) this should not be done at least on the basis of the now Jepson preambles that

limit independent claim 1 more closely to the previous mere utility of observing variations of

network packets and independent claim 8 to the actual observing thereof. Neither the Tosey nor

the Lee, et al. patents provide a rational underpinning for this, but:

> ... [R]ejections on obviousness cannot be sustained by mere
> conclusory statements; instead there must be some articulated
> reasoning with some rational underpinning to support the legal
> conclusion of obviousness. *Examination Guidelines for
> Determining Obviousness Under 35 U.S.C. 103 in View of the
> Supreme Court Decision in KSR International Co. v. Teleflex Inc.*,
> Fed. Reg. October 10, 2007, 57526, 57528-9.

Claim 1 of the subject invention relates to a device for observing variations of network

packets. The device of Claim 1 comprises: a first I/O observer device 10 for analyzing contents

of packets; a second I/O observer device 12 for analyzing contents of the packets; a third I/O

observer device 14 for analyzing contents of the packets; a first hub 22 for transmitting the

packets; a second hub 24 for transmitting the packets; a third hub 26 for transmitting the packets;

a first packet extractor 16 having a packet outputting end and a packet receiving end, wherein

said packet receiving end of the first packet extractor 16 is connected to said first hub 22, said

second hub 24, and said third hub 26, and said packet outputting end of the first packet extractor

16 is connected to said first I/O observer device 10; a second packet extractor 18 having a packet

outputting end and a packet receiving end, wherein said packet receiving end of the second

packet extractor 18 is connected to said first hub 22, said second hub 24, and said third hub 26,

and said packet outputting end of the second packet extractor 18 is connected to said second I/O

observer device 12; and a third packet extractor 20 having a packet outputting end and a packet receiving end, wherein said packet receiving end of the third packet extractor 20 is connected to said first hub 22, said second hub 24, and said third hub 26, and said packet outputting end of the third packet extractor 20 is connected to said third I/O observer device 14.

Claim 8 of the subject application relates to a device for observing network packets. The device of Claim 8 comprises: a first hub 22; a second hub 24; a third hub 26; a first personal computer provided with at least three network interface cards respectively connected to said first hub 22, said second hub 24, and said third hub 26; a second personal computer provided with at least three network interface cards respectively connected to said first hub 22, said second hub 24, and said third hub 26; and a third personal computer provided with at least three network interface cards respectively connected to said first hub 22, said second hub 24, and said third hub 26.

Relevant Disclosure of Tosey

Tosey's invention is accomplished by providing a redundant network architecture with mechanisms for automatically detecting and recovering from failure of a network interface. Tosey also allows the network to continue operation without the need for recovery actions, such as the replacing the failed network interface card (please refer to column 3, lines 28 to 34 of Tosey).

Relevant Disclosure of Lee et al.

FIG. 4 of Lee et al. shows a block diagram for the security device 100. The security device 100 includes three Ethernet cards 402, 404, 406 to process network traffic information and data associated with the corresponding external network 218, trusted network 220, and optional network 222. The Ethernet cards 402, 404, 406 are respectively coupled to the ports 212, 214, 216. The Ethernet cards 402, 404, 406 are in turn operatively coupled to the microprocessor 408 via respective lines 418, 420, 422. The microprocessor 408 is coupled to the screen 104 by one or more lines 416 that allow the microprocessor 408 to control the individual indicators (see, e.g., FIG. 1) of the screen 104. While Ethernet cards 402, 404, 406 are shown herein, it is to be appreciated that principles of embodiments of the invention can be applied to other types of network systems, protocols, and interfaces (e.g., token rings, AppleTalk, Netware, etc.). Also, although only three Ethernet cards 402, 404, 406 and a single microprocessor 408 are shown and described herein, embodiments of the security device 100 can use any number of cards and microprocessors depending on the specific network traffic monitoring requirements of the company (please refer to column 5, lines 40 to 61 and FIG. 4 of Lee et al.).

Difference between the subject invention, Tosey and Lee et al.

Difference in Objects

The object of the device of Tosey and Lee et al. is to provide a communication alternate backup path, i.e. to provide a redundant network architecture. On the other hand, the objects of the claimed device of the subject invention are various, not emphasis on "redundant."

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As shown in Fig. 1 below, two observer devices of the claimed device of the subject

invention can be used as hosts and the other observer device can be used as a NAT server. The

three observer devices of the claimed device of the subject invention can be varied as nodes with
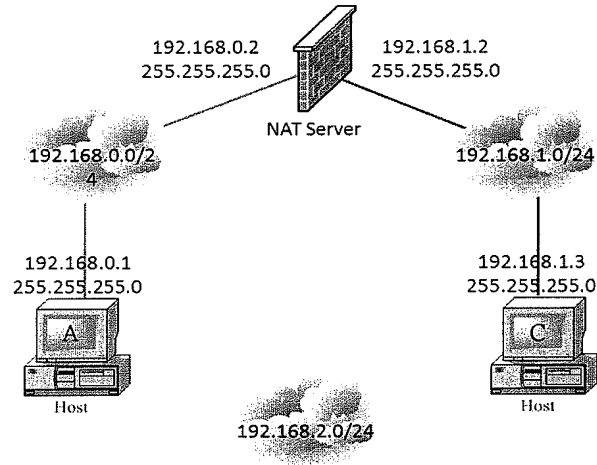
various functions.

Fig. 1

Thus, the variety of the claimed device of the subject invention is better than Tosey and Lee et

al., i.e. the claimed device of the subject invention is more generalized and can be applied for

teaching and experimental purposes.

Difference in architectures

The architectures in Tosey and Lee et al. are fixed. Although the architecture of the claimed observer device of the subject invention is also fixed, the logical topology of the claimed observer device can be changed by enabling or disabling the packet extractors. Fig. 2 below shows the physical architecture of the claimed observer device:
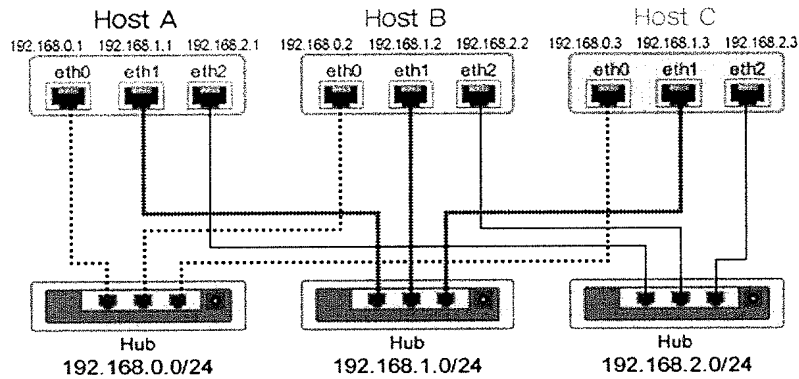

Fig. 2

The claimed device of the subject invention contains Host A, Host B and Host C. Examples of different logical topologies of the claimed device of the subject invention formed by enabling or disabling the packet extractors are shown below in Figs. 3 and 4.
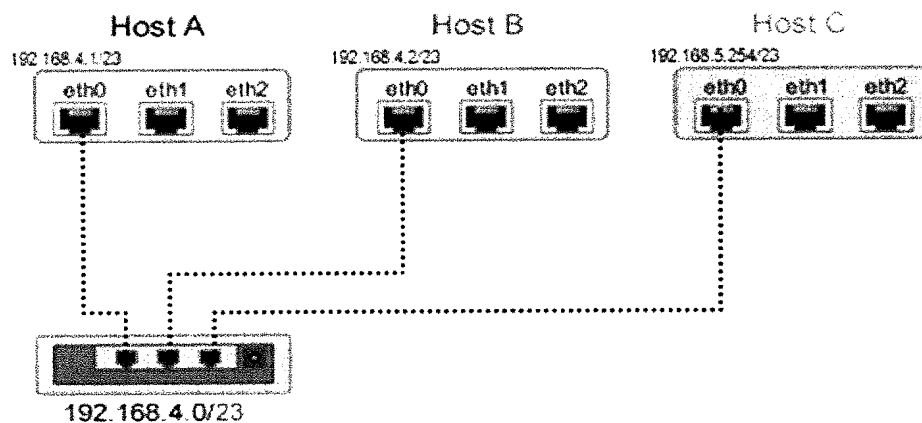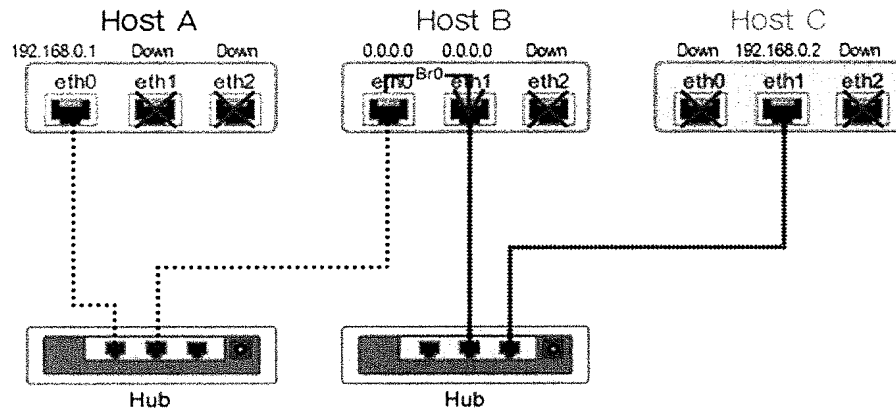

Fig. 3

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Fig. 4

As to Fig. 3, the claimed device of the subject invention connects the three hosts in series. As to Fig. 4, Host B functions as a bridge, i.e. Host A and Host C are bridged via Host B. Thus, the claimed device of the subject invention has excellent variability.

Difference in functions

The packet extractor of the claimed device of the subject invention is different from the devices of Tosey and Lee et al. that concentrate on "detecting and recovering." The packet extractor of the claimed device of the subject invention can not only observe packets, but also be applied for teaching and experimental purposes via performing behavior explanation to various packets generated through the observer devices.

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The observer devices of the claimed device of the subject invention can be set as nodes with various functions via software settings. For example, the observer device can be set as a router, a DHCP server, a HTTP server, a general host, a VPN server, a firewall, a NAT server, etc. in order to perform functions for communicating with various networks.
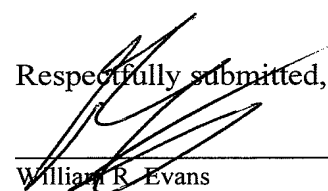
Tosey

The Action asserts that Tosey teaches that the invention could also be used for monitoring network connections (see column 10, lines 4 and 5). However, according to column 10, lines 4 and 5 of Tosey, "this invention also provides a <u>monitoring and recovery process for network connections in multiple computing devices</u>." The object of Tosey is to monitor occurrence and recovery of a failure of one of the network interface cards. The above object is apparently different from the above objects of the claimed invention.

Lee et al.

As to Lee et al., according to the disclosure in column 5, lines 40 to 61, it is obvious that Lee et al. failed to disclose components that are equivalent to the first hub, the second hub and the third hub and especially <u>connection relationship between the packet extractors and the hubs</u> of the subject invention. Thus, the applicant considers that Claims 1 and 8 cannot be obvious from the Lee et al. patent even if it is combined with the Tosey patent.

Reconsideration and allowance are, therefore, requested.

Respectfully submitted,

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